A. Major Duties

Typical, but not all inclusive, duties are illustrated by performance of any combination of the following:

Applies initiative and resourcefulness in planning non-routine assignments of substantial variety and complexity; selects appropriate guidelines to resolve operational problems not fully covered by precedents; develops revisions to standard work methods and procedures; modifies parts, instruments, and equipment; and takes action or makes recommendations based on preliminary interpretation of data or results of analyses.

Constructs, assembles, and installs new equipment, and makes modifications and repairs to experimental or other equipment.

Plans, assembles, installs and calibrates instrumentation for collecting research data. Performs field maintenance on instrumentation to insure proper operation throughout the test period.

Assembles and installs complex precision instruments and devices; modifies or adapts instruments and equipment to obtain desired performance characteristics; devises experimental techniques; and observes significant trends in experimental data.

Assembles, tabulates and conducts analyses of collected data, with responsibility for recognizing and correcting errors, inconsistencies and other deficiencies in the data. Determines the causes of deviations in the test data, e.g., equipment malfunctions, sampling technique, or observational errors. Uses appropriate electronic equipment and computer software in assembling and tabulating data.

Selects the best methods for presenting the data and prepares drafts, drawings, charts, graphs, figures, and reports illustrating and summarizing research results. Assists the research scientist in making accurate research interpretation and drawing accurate conclusions.

Keeps work-site in a neat and orderly manner.

B. Evaluation Factors

1. Knowledge Required by the Position (FLD 1-5: 750 pts)

Knowledge of, and skill in applying the hydrologic principles and policies and programs to layout, schedule, organize, and execute the details of either: (1) a wide variety of limited operational projects; and/or (2) one-at-a-time (and often long range) multi-phased projects, at least some of which have nonstandard technical problems that must be coordinated with others.

Practical knowledge of the basic theories and practices of the hydrologic and electronic discipline(s) supported.

Ability to adapt, develop, or improve techniques and procedures.

Thorough knowledge of hydrologic processes, methods, procedures and management practices necessary to perform a full range of complex duties related to the area of assignment.

Knowledge and understanding of the application of instrumentation used in analyses so that equipment can be modified to accommodate existing sampling and analytical conditions.

Skill to operate and maintain complex equipment systems common to laboratory and field which must be calibrated and synchronized to achieve desired results.

Ability to locate, organize and adapt information from published literature for use as guidelines for new procedures.

Ability to keep exact and detailed records of data obtained from experiments.

Knowledge of the research project objectives sufficient to contribute ideas to the planning and sequencing of the technical aspects of experimental design and execution.

Skill in recognizing results that are unexpected, unusual or erroneous and independently initiate action to overcome technical difficulties or refer for professional resolution or interpretation.

Skill in the use of personal computer and software packages in the data collection, analysis, and presentation processes.

Skills to obtain, tabulate, statistically analyze, and summarize data by graphic or other means. Familiarity with electronic and microprocessor-based calculators and equipment, and with computerized data storage and manipulation.

Knowledge of safe laboratory procedures.

2. Supervisory Controls **(FLD 2-3: 275 pts)**

The supervisor or higher graded employee authority initially provides direction on the priorities, objectives, and/or deadline for kinds of work previously performed in the unit and therefore covered by precedent. Assignments new to the organization or unusual assignments may be accompanied with a general background discussion, including advice on the location of reference material to use.

The incumbent identifies the work to be done to fulfill project requirements and objectives, plans and carries out the procedural and technical steps required, seeks assistance as needed, independently coordinates work efforts with outside parties, and characteristically submits only completed work. Administrative direction or decision is sought from higher authority on the course to follow when encountering significant technical or procedural problems with the work.

Review is usually in the form of an assessment as to how the incumbent resolved technical and related administrative problems encountered. Accuracy of the data produced, quality of observations made, and the sufficiency of steps employed in planning and executing the work assigned are customarily accepted without detailed review.

3. Guidelines (FLD 3-2: 125 pts)

Procedures for doing the work have been established and a number of specific guidelines are applicable. Incumbent uses judgment in selecting the appropriate guideline because of the number, similarity, linkage, and overlapping nature of the guides.

The guidelines contain criteria to solve the core question or problem contained in the assignments, though the applicability may not be readily apparent, i.e., the guides often require careful study and cross-referencing.

4. Complexity (FLD 4-3: 150 pts)

The work requires the performance of various technical duties which involve differing and unrelated processes and methods. The test equipment and procedures require considerable skill in experimentation and judgment to obtain reproducible data, and recognize and interpret reactions that are difficult to observe and that can significantly affect the validity of the data. A number of possible courses of action for planning and executing the work exists, and the incumbent is given leeway or otherwise exercises discretion in choosing from among them.

Judgment is required to apply a wide range of conventional, established approaches, methods, techniques and solutions to new situations. The incumbent identifies and recommends resolution of discrepancies in data based on a study of how the data interrelate; adjusts work methods to accommodate unusual conditions; and/or recommends or determines what data to use, record or report.

5. Scope and Effect (FLD 5-3: 150 pts)

The work involves applying conventional, technical and administrative solutions and practices to a variety of problems. Incumbent is involved in almost all phases of the scientist's study, and has responsibility for selected phases or conducts test

applications of scientific and technical theories when the methods, techniques, and procedures are clearly outlined.

Work products directly affect the design and execution of experiments or the adequacy of such activities as long range work plans, field investigations, testing operations, or research conclusions.

6. Personal Contacts and **(2b: 75 pts)**
7. Purpose of Contacts

Personal contacts are with employees in the agency, inside and outside of the immediate work unit, e.g., personnel from higher level organizational units, or, occasionally, resource individuals from State or local government units, or other Federal agencies.

The purpose of personal contacts is to plan and coordinate work efforts; discuss technical requirements of equipment with manufacturers and resolve problems concerning the work or the peculiar needs of the organization; interpret data obtained and explain its purpose and significance; or reach agreement on operating problems such as recurring submission of inaccurate, untimely, incomplete or irrelevant data. The persons contacted are usually working toward a common goal and generally are reasonably cooperative.

8. Physical Demands **(FLD 8-2: 20 pts)**

The work requires some physical exertion, such as regular and recurring walking, or bending. In many situations the duration of the activity (such as most of a work day) contributes to the arduous nature of the job. In other situations, such as in a laboratory, there may be special requirements for agility or dexterity such as exceptional hand/eye coordination.

9. Work Environment **(FLD 9-2: 20 pts)**

The work is performed in a laboratory, shop, field, or other research setting which involves regular and recurring moderate risks or discomforts requiring special safety precautions, e.g., working with electronic equipment or working outdoors. The employee is required to use protective clothing such as boots, goggles, gloves.

C. Other Considerations (Check if applicable)

[ ] Supervisory Responsibilities (EEO Statement)
[ ] Training Activities - Career Intern, Student Career Experience Program
[ ] Motor Vehicle or Commercial Driver's License Required
[ ] Pesticide Applicators License Required
[ ] Safety/Radiological Safety Collateral Duties [ ] EEO Collateral Duties
[ ] Drug Test Required
[ ] Vaccine(s) Required
[ ] Financial Disclosure Required
[ ] Special Physical Requirements/Demands [ ] Other:

TOTAL POINTS: 1565 points
(GS-7 Range: 1,355-1,600 points)